Mobile Application Programming: Android

Fragments
Activities

- Apps are composed of activities
- Activities are self-contained tasks made up of one screen-full of information
- Activities start one another and are destroyed commonly
- Apps can use activities belonging to another app
Services

- An application component that can perform long-running operations in the background and does not provide a user interface.
- Can be started and potentially run indefinitely or be bound to and run until the operation the service provides is no longer needed.
- Apps can use services belonging to another app
- Can be unbound or bound
Fragments

St. George and the Dragon
Campbells Soup
Self Portrait
Starry Night
The Scream
Last Supper
The Optometrist
The Great Wave off Kanagawa
The Persistence of Memory
Water Lilies
Fragments

LinearLayout
Fragments

- LinearLayout
- FrameLayout
- FrameLayout
Fragments

- LinearLayout
- FrameLayout
- ListFragment
- Fragment
Fragments

Tablet

Selecting an item updates Fragment B

Activity A contains Fragment A and Fragment B

Handset

Selecting an item starts Activity B

Activity A contains Fragment A

Activity B contains Fragment B
Fragments

- Acts like a sub-activity
- Attached and removed from an activity using the `FragmentManager`
- Attachment or removal of many fragments with `FragmentTransaction`
- Lifecycle tied to parent activity
- Adds `onAttach` / `onDetach` and `onCreateView` / `onDestroyView`